

# Job Title: TECHNICAL MANAGER V - TRAVEL DEMAND MODELING UNIT CHIEF - IPR#45984

**Agency :** Department of Transportation

**Closing Date/Time:** 05/05/2023

**Salary:** \$6,145 - \$10,210 Monthly

**Job Type:** Salaried Full Time

**County:** Cook

**Number of Vacancies:** 1

**Plan/BU:** NR916 - Protech Teamsters

**This position is a union position; therefore, provisions of the relevant collective bargaining agreement/labor contract apply to the filling of this position.**

**All applicants who want to be considered for this position MUST apply electronically through the [illinois.jobs2web.com](https://illinois.jobs2web.com) website. State of Illinois employees should click the link near the top left to apply through the SuccessFactors employee career portal.**

**Applications submitted via email or any paper manner (mail, fax, hand delivery) will not be considered.**

## Agency Mission Statement

The Illinois Department of Transportation is seeking to hire a Travel Demand Modeling Unit Chief.

The IDOT team works diligently to provide safe, cost-effective transportation for Illinois in ways that enhance quality of life, promote economic prosperity and protect our environment. We are problem solvers and leaders, constantly searching for innovations and improvements in support of our commitment to providing the best multimodal transportation system for Illinois.

Our team fosters a culture of inclusivity. We value diversity and hold ourselves to the highest ethical standards as we work together for a common purpose. Team members frequently collaborate with colleagues and others outside the department to best meet customer needs.

The department offers extensive training and career advancement opportunities. Employees also receive a robust benefit package including:

- Monday-Friday work schedule
- Flexible work schedules are available in many program areas.
- Health, Life, Vision, and Dental Insurance
- Pension Plan
- (10) Weeks paid Maternity/Paternity Leave
- Deferred Compensation Program and other pre-tax benefit programs (Medical/Daycare)
- Employees earn (12) paid Sick Days annually.
- New Employees earn (10) paid Vacation Days their first year of service and can earn up to (25) paid Vacation Days annually.
- Employees earn (3) paid Personal Days annually.
- (13-14) paid holidays annually (based on start date)
- Tuition Reimbursement

We invite qualified applicants to apply to become part of our team. We are confident that you will take pride in serving Illinois and its residents and visitors.

## Job Responsibilities

This position is accountable for maintaining the statewide travel demand model to serve internal and external customers for program and project development. The incumbent will work to integrate the use of the statewide travel demand model into regular project planning and development.

Traffic analysis zones: 5000

Local travel demand model coordination: 16

State travel demand coordination: 5

State emission modeling coordination: 8

This position reports to the Travel Demand Modeling and Forecasting Section Chief. Reporting to this position are the Travel Demand Modeling Specialist and Emission Modeling Assistant.

This position will be responsible for leading a staff that will develop and maintain the statewide travel demand model with associated data. The incumbent will oversee the modeling team where the primary responsibilities focus on maintaining the statewide travel demand model; making recommendations on data and software products to enhance travel demand modeling; providing technical support to Illinois' metropolitan planning organizations (MPO); and integrating the statewide travel demand model into statewide processes. The incumbent will develop the travel demand modeling work program and provide ongoing management of the program including developing and implementing a vision for the continued maintenance and enhancement of the Illinois statewide travel demand model. Types of data used to maintain and develop the travel demand model are traffic counts, origin-destination surveys, census data, household travel surveys, innovative data solutions such as big data, Institute of Transportation Engineers (ITE) Trip Generation manuals, and MPO's travel demand models.

This position requires an advanced understanding of the fundamentals of discrete choice models, population synthesis, gravity models, and economic modeling software. This position provides substantial technical support of the development, maintenance, and operation of the Illinois statewide travel demand model. The incumbent will be responsible for initiating and expanding the department's use of Regional Economic Models, Inc. (REMI). Air quality and emission measurements are major outputs from statewide travel model. The incumbent will also supervise emission study and air quality related tasks as needed.

### **(Job Responsibilities continued)**

The greatest challenge for this position is to be able to integrate the travel demand model into project development throughout the department's districts, coordinating with MPO's, and developing staff. Additional challenges will be vetting possible data sources including innovation data such as big data.

The incumbent is responsible for managing the statewide travel demand model and delegating work assignments to staff. This position will be responsible for reviewing work completed by consultants for traffic forecasts for project development reports. This position is responsible for developing the travel demand modeling portion of a manual that details the travel demand model and provides ongoing guidance of its evolution. The incumbent will be responsible for maintaining relevant training on the latest technology for travel demand management.

Additional responsibilities include providing technical expertise to the Bureau of Information Processing (BIP) for the procurement and coordination of software and data to maintain and enhance the statewide travel demand model.

The incumbent accomplishes accountabilities through the following staff:

Travel Demand Modeling Specialist who is responsible for developing and maintaining the statewide travel demand model to serve internal and external customers for program and project development. The incumbent will work on integrating the use of the statewide travel demand model into regular project planning and development.

Emission Modeling Assistant who will assist in air quality and emission modeling studies to serve internal and external customers. The incumbent will utilize existing tools such as the Illinois Statewide Travel Demand Model (ILSTDm), EPA's Motor Vehicle Emission Simulator (MOVES) model, or other available data sources to facilitate the emission study. They will be responsible for assisting in identifying data sources to enhance the emission models, making recommendations for better integration of the emission models into the travel demand modeling process for Bureau of Planning. This position will assist with travel demand model maintenance and update as needed.

### **(Job Responsibilities continued)**

The incumbent will work with the Travel Demand Modeling and Forecasting Section Chief to manage and develop staff, make recommendations related to maintaining and updating the travel demand model software, emission modeling software, data, and hardware. The incumbent will work with the Travel Demand Modeling and Forecasting Section Chief to determine how to coordinate with the MPOs and districts to raise awareness of the travel demand model and simulations as well as the use of REMI. The incumbent will work with the Travel Demand Modeling and Forecasting Section Chief on determining which information and data should be shared

with internal and external stakeholders. The incumbent is constrained by state and federal laws and departmental policies, regulations, and practices.

The incumbent has internal contact with the department's districts, BIP, Bureau of Design and Environment, and the Bureau of Planning staff. External contacts include Illinois' MPOs, data providers, software providers, and consultants. This position requires occasional statewide and out-of-state travel with overnight stays.

The effectiveness of this position is measured by the incumbent's ability to integrate the travel demand model into regular project planning and development.

## **Principal Accountabilities**

1. Manages the statewide travel demand model and delegates work assignments to staff and consultants.
2. Analyzes work completed by consultants for traffic forecasts for project development reports.
3. Develops the travel demand modeling portion of a manual that details the travel demand model and provides ongoing guidance of its evolution.
4. Provides technical expertise to BIP for the procurement and coordination of software and data to maintain and enhance the statewide travel demand model.
5. Stays current with relevant training on the latest technology for travel demand management.
6. Develops staff to ensure competency with the latest technology for travel demand management.
7. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
8. Performs other duties as assigned.

## **Qualifications**

### **Position Requirements**

- Education/Experience:
  - Completion of a bachelor's degree majoring in urban planning, mathematics, economics, statistics, geography, geographic information systems, environmental planning, or computer science plus three years of experience in travel demand modeling, technical analysis, transportation planning, traffic modeling and forecasting, mapping, data collection, or a combination thereof, OR
  - Eleven years of experience in travel demand modeling, technical analysis, transportation planning, traffic modeling and forecasting, mapping, data collection, or a combination thereof
- Valid driver's license
- Occasional statewide and out-of-state travel with overnight stays

### **Position Desirables**

- Expertise in various travel demand modeling software such as TransCad, Cube, TransModeler, and EPA's MOVES
- Supervisory experience
- Strong oral and written communication skills

**Work Hours:** 8:00 A.M. - 4:30 P.M. Monday-Friday

**Work Location:** 69 W Washington St Chicago, IL 60602-3134

**Office:** Office of Planning and Programming/Bureau of Planning

**Agency Contact:** [DOT.CONTACTHR@ILLINOIS.GOV](mailto:DOT.CONTACTHR@ILLINOIS.GOV)

**Job Family:** Transportation; Environmental & Natural Resources; Leadership & Management; Science, Technology, Engineering & Mathematics

## **APPLICATION INSTRUCTIONS**

Use the "Apply" button at the top right or bottom right of this posting to begin the application process.

If you are not already signed in, you will be prompted to do so.

State employees should sign in to the career portal for State of Illinois employees – a link is available at the top left of the [Illinois.jobs2web.com](http://Illinois.jobs2web.com) homepage in the blue ribbon.

Non-State employees should log in on the using the "View Profile" link in the top right of the [Illinois.jobs2web.com](http://Illinois.jobs2web.com) homepage in the blue ribbon. If you have never before signed in, you will be prompted to create an account.

If you have questions about how to apply, please see the following resources:

State employees: Log in to the career portal for State employees and review the Internal Candidate Application Job Aid

Non-State employees: on [Illinois.jobs2web.com](http://Illinois.jobs2web.com) – click "Application Procedures" in the footer of every page of the website.

The main form of communication will be through email. Please check your “junk mail”, “spam”, or “other” folder for communication(s) regarding any submitted application(s). You may receive emails from the following addresses:

- donotreply@SIL-P1.ns2cloud.com
- systems@SIL-P1.ns2cloud.com